

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1 and 5-12 are pending in this application. No claims have been amended, added or cancelled. Claims 1 and 5 are the independent claims.

Applicants note with appreciation the Examiner's acknowledgement that certified copies of all priority documents have been received by the U.S.P.T.O. Action, summary at 12.

Applicants also respectfully note the present action indicates that the drawings have been accepted by the Examiner. Action, summary at 10.

Allowed Claims

Applicants appreciate the Examiner's indication that claims 5-9 are allowed.

Example Embodiments of the Present Application

Independent claim 1 recites "removing the EMC corresponding to the upper gate and lower gate includes placing the encapsulated PCB module in a jig; and mechanically removing the EMC corresponding to the upper gate and the lower gate from the encapsulated PCB module". Non-limiting example embodiments of this feature are illustrated, for example, in FIGS. 14 and 15, and paragraph [0027] of the present application.

As illustrated in FIG. 15, once the EMC 129 has set sufficiently, the encapsulated PCB module may be removed from the mold 115 and excess EMC generally corresponding to the inlet 127 between the upper and lower inlet forming blocks 125 may be removed by a degating process to obtain a PCB module package product 303. EMC 129 remaining on the thinner peripheral portion 301 of the PCB 107 and corresponding to the upper and the lower gates 119, 123 is not removed.

FIG. 14

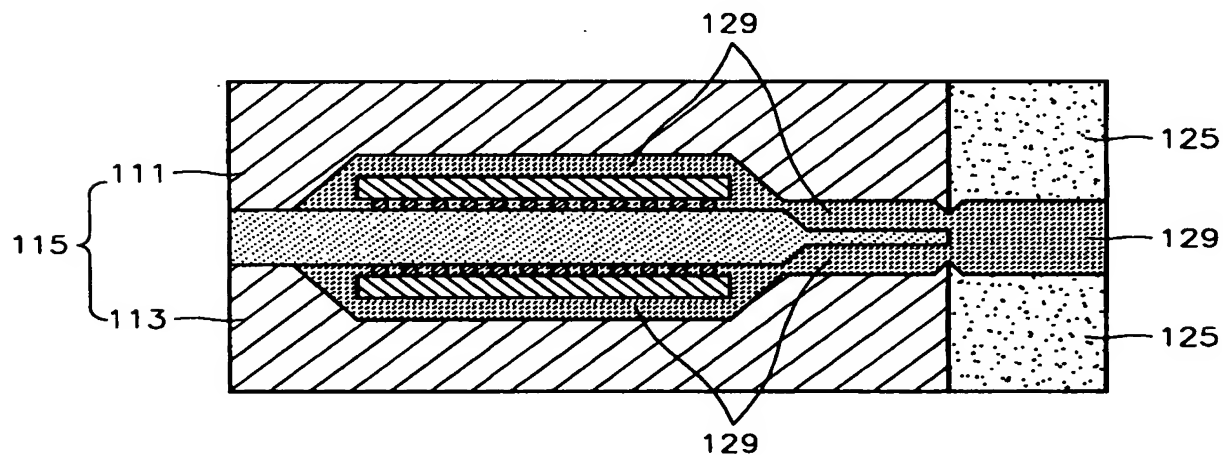
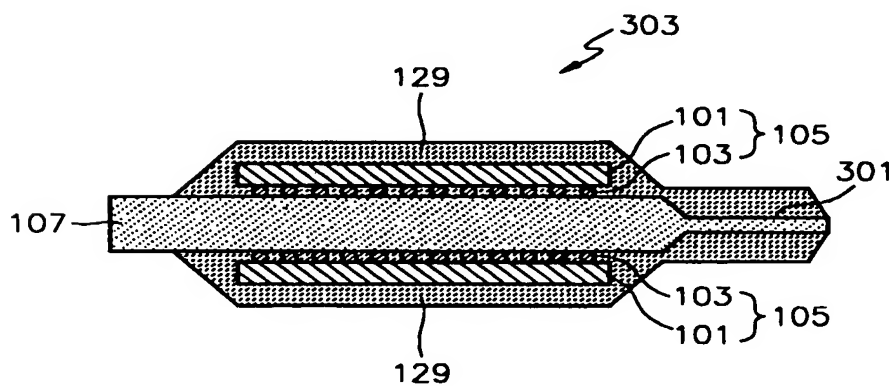


FIG. 15



Rejections under 35 U.S.C. § 103(a)

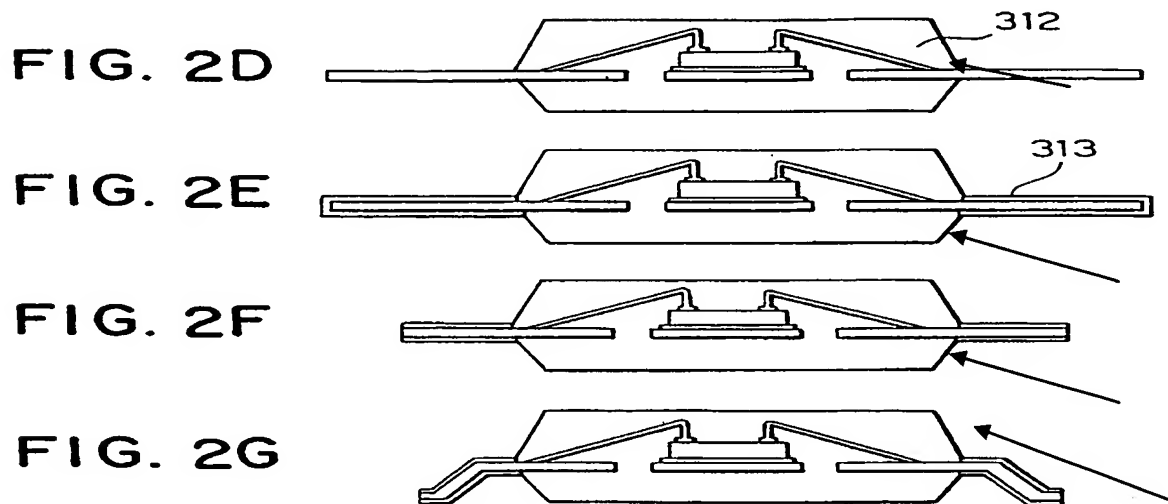
KR '412 in view of Izumi

Claims 1 and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over KR 2002-0053412 (hereinafter "KR '412") in view of U.S. Patent No. 5,635,220 to Izumi et al. (hereinafter "Izumi"). Applicants respectfully traverse this rejection for the reasons detailed below.

The Office Action stated that KR '412 teaches each claimed limitation except placing the encapsulated PCB module in a jig and mechanically removing the EMC corresponding to the upper gate and the lower gate from the encapsulated PCB module; that Izumi teaches a circuit board encapsulating method including removing the flash by placing the encapsulated circuit board module in a tie bar cutting die, as a note the tie bar cutting die constitutes the claimed placing and mechanical removing steps; that KR '412 and Izumi are combinable since they are analogous with respect to encapsulated circuit board modules having flashing thereon; and that, thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the placing and mechanical removing steps of Izumi into the process of KR '412 in order to efficiently remove the flash of the PCB of KR '412. Applicants respectfully disagree.

Applicants cannot find (nor does the Examiner point out) where Izumi teaches or suggests "removing the EMC corresponding to the upper gate and lower gate includes placing the encapsulated PCB module in a jig; and mechanically removing the EMC corresponding to the upper gate and the lower gate from the encapsulated PCB module" as recited in independent claim 1.

Rather, as is clear from FIGS. 2D -2G of Izumi, **no** portion of the molding resin 312 is removed throughout the sealing process. See FIGS. 2D-2G of Izumi below.



In column 5, lines 55-60 of Izumi, the tie-bar cutting process is used to remove burrs formed on the passage and tie-bars of the leadframe, but **not** the molding resin 312, in particular, the molding resin 312 corresponding to the upper gate and the lower gate from the encapsulated PCB module as is recited in claim 1.

The Applicants, therefore, respectfully request that the rejection to Claim 1 under 35 U.S.C. § 103(a) be withdrawn.

Claims 10-12, dependent on independent claim 1, are patentable for the reasons stated above with respect to claim 1 as well as for their own merits.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection to independent claim 1 and all claims dependent thereon.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

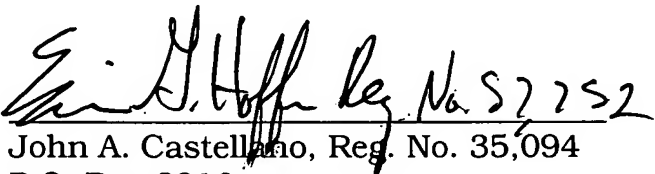
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Erin G. Hoffman, Reg. No. 57,752, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By


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